

Figure 1a

1 GCGGCCGCGT CGACCCGGCG TTCAGACGCG GGCAGCTACC GGCCTCGCT GGGCTCCGCG
61 GGGCCGTCCG GCACTTTGCC TCGCAGCTGG CAGCCCGTCA GCCGCATCCC CATGCCCCCC
121 TCCAGCCCCC AGCCCCGCGG GGCCCCGCGC CAGCGTCCCA TCCCCCTCAG CATGATCTTC
181 AAGCTGCAGA ACGCCTTCTG GGAGCACGGG GCCAGCCGCG CCATGCTCCC TGGGTCCCCC
241 CTCTTACCC GAGCACCCCC GCCTAAGCTG CAGCCCCAAC CACAACCACA GCCCCAGCCA
301 CAATCACAAC CACAGCCCCA GCTGCCCCAA CAGCCCCAGA CCCAACCCCC AACCCCTACC
361 CCAGCCTCCC ACATCCGCAT CCCAACAGA CATGGCCCC TGTGAACGAA GGACCCCCCA
421 AACCCCCCAC CGAGCTGGAG CCTGAGCCGG AGATAGAGGG GCTGCTGACA CCAGTGTGCG
481 AGGCTGGCGA TGTGGATGAA GGACCCTGTA GCAAGGCCTC TCAGCCCCAC GAGGCTGCAG
541 CCAGCACTGC CACCGGAGGC ACAGTCGGTG CCCGAGCTGG AGGAGGTGGC ACGGGTGTG
601 GCGGAAATTC CCCGGCCCC CAAACGCAGG GGCTCCATGG AGCAGGCCCC TGCTGTGGCC
661 CTGCCCCCTA CCCACAAGAA ACAGTACCAG CAGATCATCA GCCGCCTCTT CCATCGTCAT
721 GGGGGGCGAG GGCCCCGGGG GCGGAGCCAG AGCTGTCCCC CATCACTGAG GGATCTGAGG
781 CCAGGGCAGG GCCCCCTGCT CCTGCCCCAC CAGTCCCAT TCCACGCCC GGCCCCGTCC
841 CAGAGCAGCC CACCAGAGCA GCCGCAGAGC ATGGAGATGC GCTCTGTGCT GCGGAAGGCG
901 GGCTCCCCGC GCAAGGCCCC CCGCGCGCGC CTCAACCTC TGGTGCTCCT CTTGGACGCG
961 GCGCTGACCG GGGAGCTGGA GGTGGTGCAG CAGGCGGTGA AGGAGATGAA CGACCCGAGC
1021 CAGCCCAACG AGGAGGGCAT CACTGCCTTG CACAACGCCA TCTGCGGCGC CAACTACTCT
1081 ATCGTGGATT TCCTCATCAC CGCGGGTGCC AATGTCAACT CCCCCGACAG CCACGGCTGG
1141 ACACCCCTGC ACTGCGCGGC GTCTGTGCAAC GACACAGTCA TCTGCATGGC GCTGGTGCAG
1201 CACGGCGCTG CAATCTTCGC CACCACGCTC AGCGACGGCG CCACCGCCTT CGAGAAGTGC
1261 GACCCTTACC GCGAGGGTTA TGCTGACTGC GCCACCTACC TGGCAGACGT CGAGCAGAGT
1321 ATGGGGCTGA TGAACAGCGG GGCAGTGTAC GCTCTCTGGG ACTACAGCGC CGAGTTCGGG
1381 GACGAGCTGT CCTTCCGCGA GGGCGAGTCG GTCACCGTGC TGGGAGGGA CGGGCCGGAG
1441 GAGACCGACT GGTGGTGGGC CGCGCTGCAC GGCCAGGAGG GCTACGTGCC GCGGAACCTAC
1501 TTCGGGCTGT TCCCCAGGGT GAAGCCTCAA AGGAGTAAAG TCTAGCAGGA TAGAAGGAGG
1561 TTTCTGAGGC TGACAGAAAC AAGCATTCCT GCCTTCCCTC CAGACCTCTC CCTCTGTTTT
1621 TTGCTGCCTT TATCTGCACC CCTCACCTG CTGGTGGTGG TCCTTGCCAC CGGTTCTCTG
1681 TTCTCCTGGA AGTCCAGGGA AGAAGGAGGG CCCAGCCTT AAATTTAGTA ATCTGCCTTA
1741 GCCTTGGGAG GTCTGGGAAG GGCTGGAAAT CACTGGGGAC AGGAAACCAC TTCCTTTTGC
1801 CAAATCAGAT CCCGTCCAAA GTGCCTCCCA TGCCTACCAC CATCATCACA TCCCCAGCA
1861 AGCCAGCCAC CTGCCAGCC GGGCCTGGGA TGGGCCACCA CACCACTGGA TATTCCTGGG
1921 AGTCACTGCT GACACCATCT CTCCAGCAG TCTTGGGGTC TGGGTGGGAA ACATTGGTCT
1981 CTACCAGGAT CCCTGCCCCA CCTCTCCCCA ATTAAGTGCC TTCACACAGC ACTGGTTTAA
2041 TGTTTATAAA CAAAATAGAG AACTGGTTT AATGTTTATA AACAAAATAG AGAAACTTTC
2101 GCTTATAAAT AAAAGTAGTT TGCACAGAAA TGAACAAAAA AAAAAA

Figure 1b

```

1  atgggtcacga ccagtagcgg aggggggtata ggggtaccgg caaacaacgg tgtcacacag
61  gtgtctctga ttcactcgtc ggattctgtg cgaactgttt caactgcccc aatataaccgt
121  ccgacgtcat caatggcatc tacgatggct cataaatctt cgacggctcc gttcatctcc
181  gcaaatcaac gaatgtcaaa accgccgggt cgggtgggtcg ctcaaccacc accaccacat
241  ccacaagcat tgtcccaaca gtatcaccag cagaatccga tgatgatgta ttccgcacca
301  aatacacgac cacaógttat tccgacaatg caagtgcac cgacaatggc cgctcaaatt
361  aaacgaaata atcctgttaa tgcacagttt cagaaccctt ctgaaatgat cgccgattac

421  ggtgtaaaac cgcagtcagt agaaatgggtg caaagagttc gagctgttcg aagacaagtc
481  gccgacgagg agaccgaact gcgaagactc agagagcttg aacacgaaac ggcacagctt
541  caaaataaga attatggaag agaaagagag ttgaatgtgc aaggatccat gctgaaagaa
601  gctcaattag agttgagaaa tgcttcaatg agggcgcaat ctttaaacia gcttttgaa
661  gaaatgtacc ggagaagaca aactgcagca gcggcagcgc tegtggaaca acgaaaaatg
721  cagcaacatc agattcttct agcccgagct gcaaatcaag tatccacaca agaagttata
781  agacctcggtg cttctgtcga accattccaa gttaataata cccaacagca acaaccatca
841  cctcaaatga tgaaatcaga agaattttcg gagaaaagag atttgaatgg acaaactggc
901  agttatgatg ctatcgatgg atcaggagat catcaaaaaa taccgacgga gccatcgtae
961  ttggcaccat gtaaaagaaa ccagcaaaaa tactcggagt taagtaaaat ggcattctacg
1021 gatcctcatt caaatcacag ttcaccatca acttcttcgc agaaagctcc gacgttgatc
1081 acattttctc caccaagttt tgaacagaaa atcaactcgt ctacaatgac tcgggattct
1141 ccgttcgttg agcgtccaac atcgtttggt gatagtctag acgaatcacg actgagaagt
1201 ggaaagactg atttggtatc acttcgatca gattccctga aagctacgaa acgtcgttct
1261 tgggctgctt ccgaaggtae ttcaatgtca gaggcagaga tgattcatag gcttcttgat
1321 gaacaacgtc gtgggagatc acattttatt ccacaattgc caacatcaca agaagaacca
1381 tcggcaataa catcagaaac atatgccgaa gaagttgtca attcagaatc gaaacaagtt
1441 gctacaagtt cggattccac taataatctt gaattgccaa ccgaacaaat ggtattaggt
1501 agtgatacca caacagaaga agatgcaagt tcgtgttcaa cacgttctga tgatggacag
1561 aatccttgaia tggaaagtgc gattgaaaga agaactgtta aaggcatttt gagaagacct
1621 aatgaaagaa tgaacaaagg tcgcattgaa tttgacctat tagcactctt gctcgtgct
1681 gctttagaag gagaactcga tttagtgaag agcagtgcct caaagctaac agatgtctca
1741 caggccaatg atgaagggat tacggcgttg cacaatgcga tttgtgctgg acactatgag
1801 attgtaagat ttttgatcga gaacgacgct gatgtgaatg ctcaagattc cgatggttgg
1861 actccacttc attgtgcagc ttctgttaat aaccttccaa tggttagaca acttgtggaa
1921 ggaggaggat gcgttctcgc ttcgacacta tctgatatgg aaacacctgt ggagaagtgt
1981 gaagaagatg aagatggtta tgatggatgt ttgaagtatc ttccgcagc ccataactca
2041 acgggatcaa ttaatactgg aaaagtttac gctgcttatg gatatgaggc ggcatttgaa
2101 gatgagctca gttttgatgc aggagatgaa ttgacggtta ttgagaaaga taaagtcgat
2161 aaaaattggt ggacatgtga gaagaacaa ggagagaagg gacaagtacc aagaacatat
2221 ttggcgttgt acccatcggt aaaatacaga aagaagctca actttgtgat gttcgatctt
2281 ccattggaat cgaacaacaa tgtcgaataa

```

Figure 2a

MWMKDPVARPLSPTRLQPALPPEAQSVPELEEVARVLAEIPRPL
KRRGSMEQAPAVALPPTHKKQYQQIISRLFHRHGGPGPGGRSQSCPPSLRDLRPGQGP
LLLPHQLPFHRPAPSQSSPPEQPQSMEMRSVLRKAGSPRKARRARLNPLVLLLDAAALT
GELEVQQAVKEMNDPSQPNEEGITALHNAICGANYSIVDFLITAGANVNSPDSHGWT
PLHCAASCNDTVICMALVQHGAEIFATTLSDGATAFEKCDPYREGYADCATYLADVEQ
SMGLMNSGAVYALWDYSAEFGDELSFREGESVTVLRRDGPEETDWWAALHGQEGYVP
RNYFGLFPRVKPQRSK

Figure 2b

MVTTS SGGGIGYPANNGVTQVSLIHSSDSVRTVSTAPIYRPTSS.
MASTMAHKSSTAPFISANQRMSKPPVRVVAQPPPPHPQALSQQYHQQNPMMMYSAPNT
RPHVIPTMQVQPTMAAQIKRNNPVNAQFQNPSEMIADYGVPQSVEMVQRVRAVRRQV
ADEETELRRRLRELEHETAQLQNKYGRERELNVQGSMLKEAQLRLNASMRAQSLNKH
LEEMYRRRQTAAAAALVEQRKMQQHQILLARAANQVSTQEVIRPRASVEPFQVNTQQ
QQPSPQMMKSEEFSEKRDNLNGQTGSYDAIDGSGDHQKIPTEPSYLAPCKENQQKYSEL
SKMASTDPHSNHSSPSTSSQKAPTITFSPPSFEQKINSSTMTRDSPFVERPTSFGDS
LDESRLRSGKTDLVSLRSDSLKATKRRSWAASEGTSMSAEMIHRLLDEQRRGRSHFI
PQLPTSQEEPSAITSETYAEEVVNSESKQVATSSDSTNNLELPTEQMVLGSDTTTEED
ASSCSTRSDDGQNLEMEVAIERRTVKGILRRPNEKMNGRIEFDPLALLLDAALEGEL
DLVRSSASKLTDV SQANDEGITALHNAICAGHYEIVRFLIENDADVNAQSDGWTPLH
CAASCNNLPMVRQLVEGGGCVLASTLSDMETPVEKCEDEDDGYDGCLKYLSAAHNSTG
SINTGKVYAAYGYEAAFEDELSFDAGDELTVIEKDKVDKNWWTCEKNNGEKGQVPRTY
LALYPSLKYRKKNFVMFDLPLESNNNVE

Figure 3a

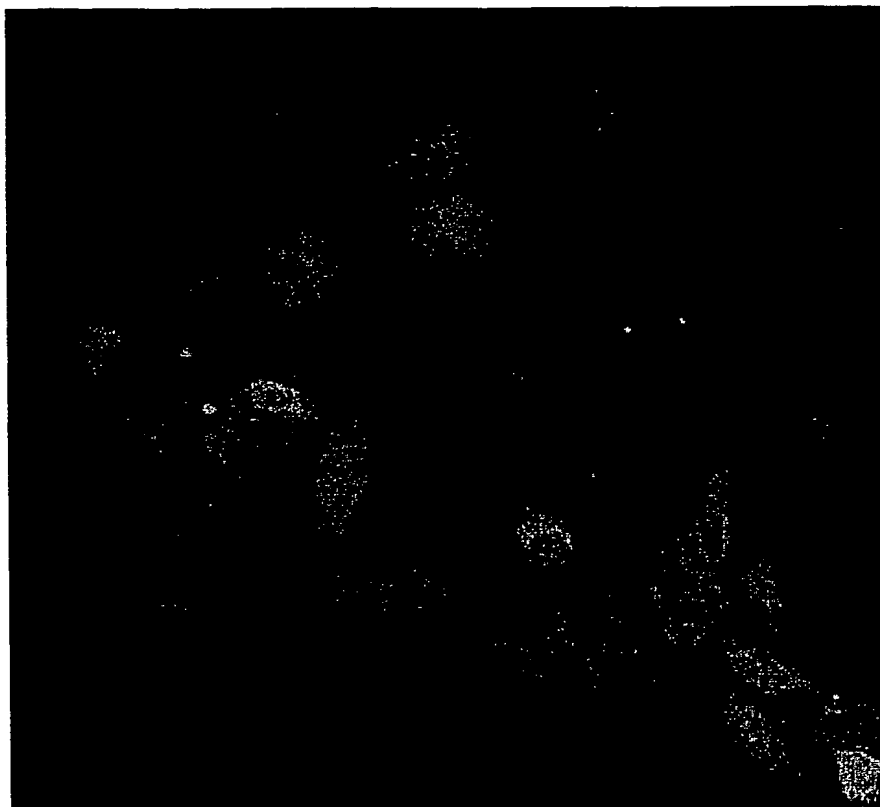
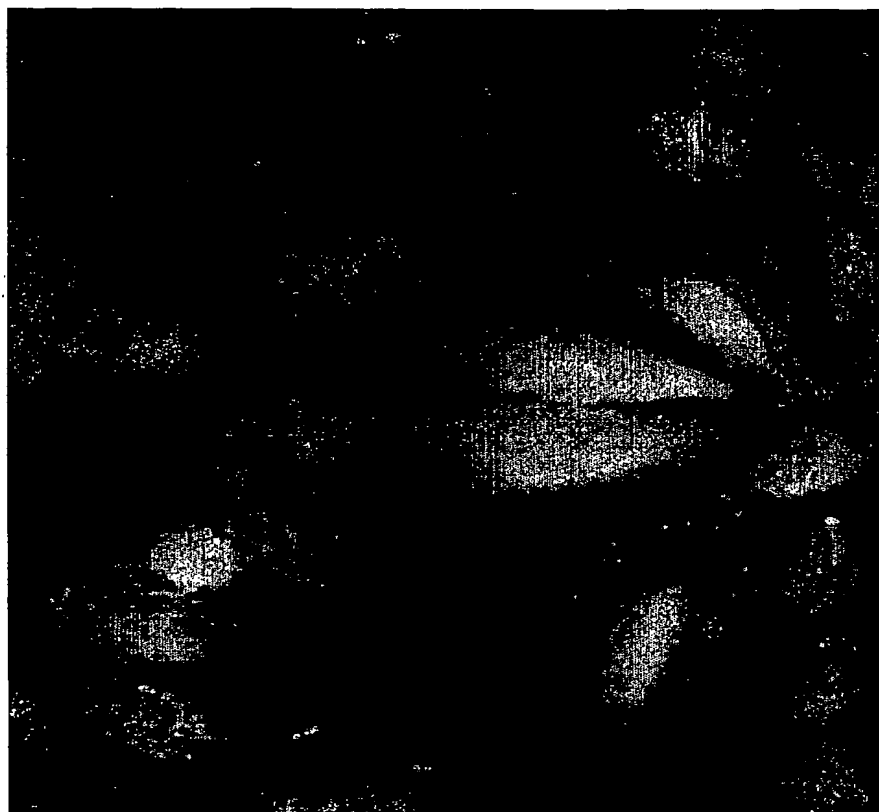


Figure 3 b



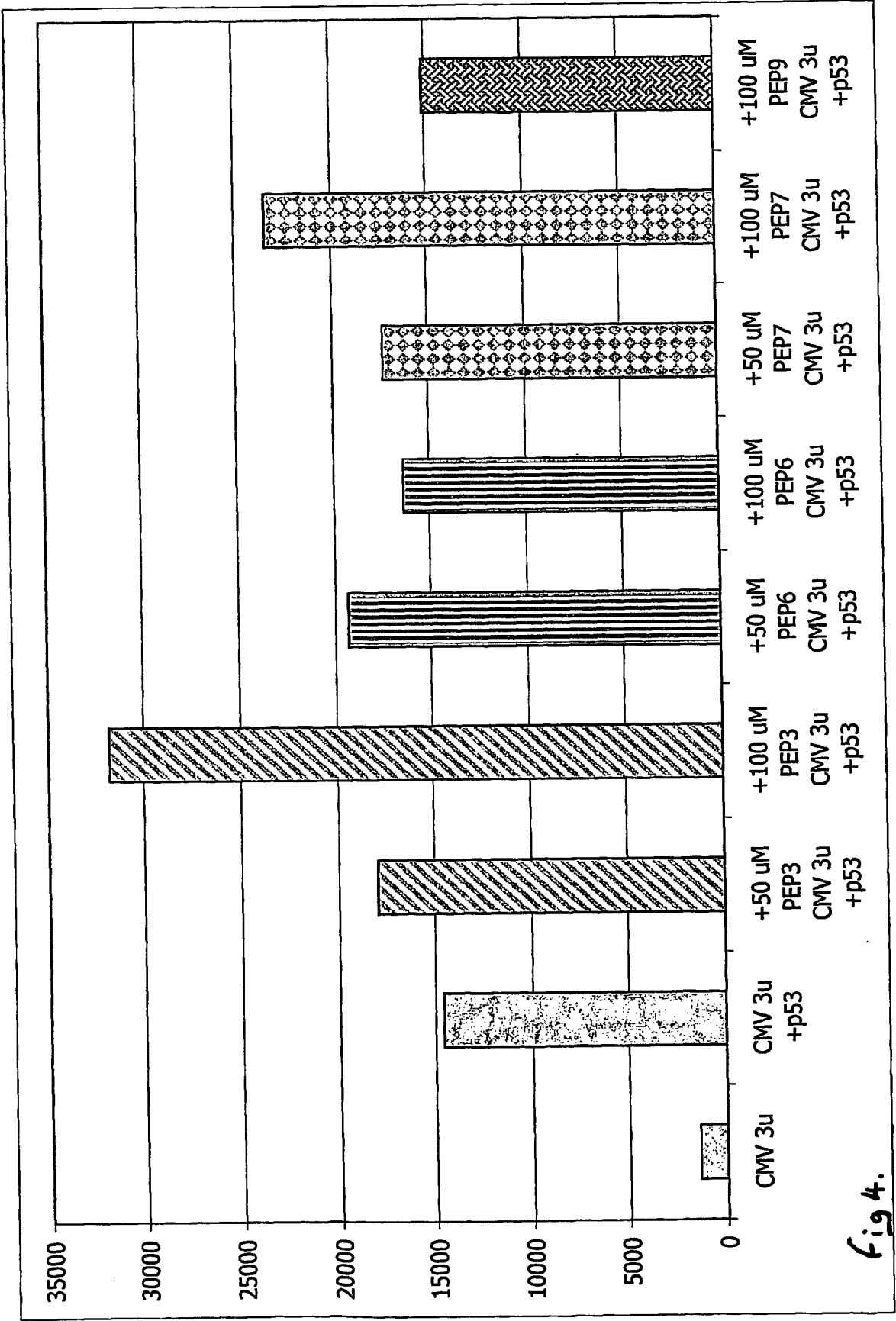


Fig 4.

Peptide influx on U2OS BaxLuc

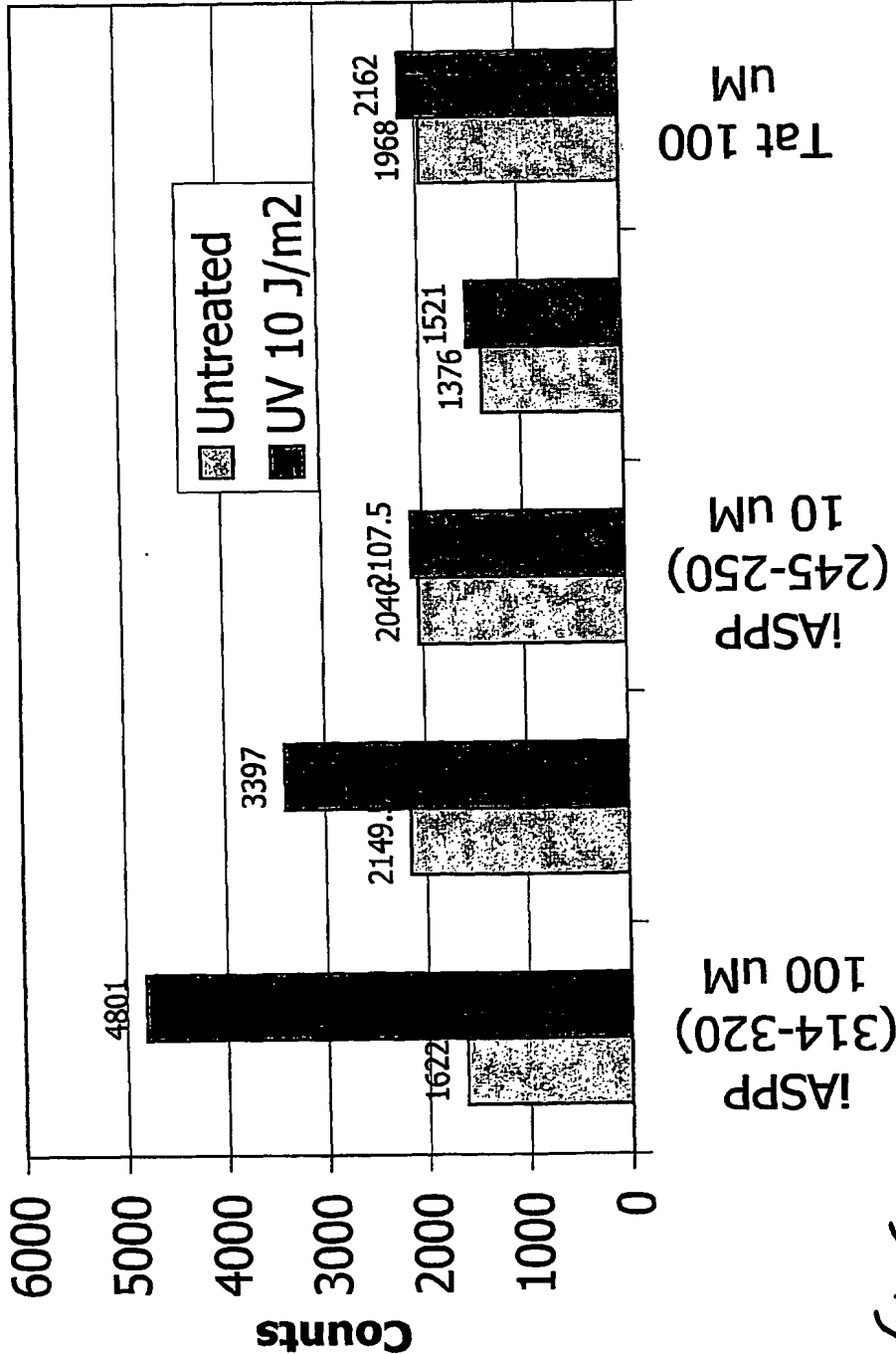
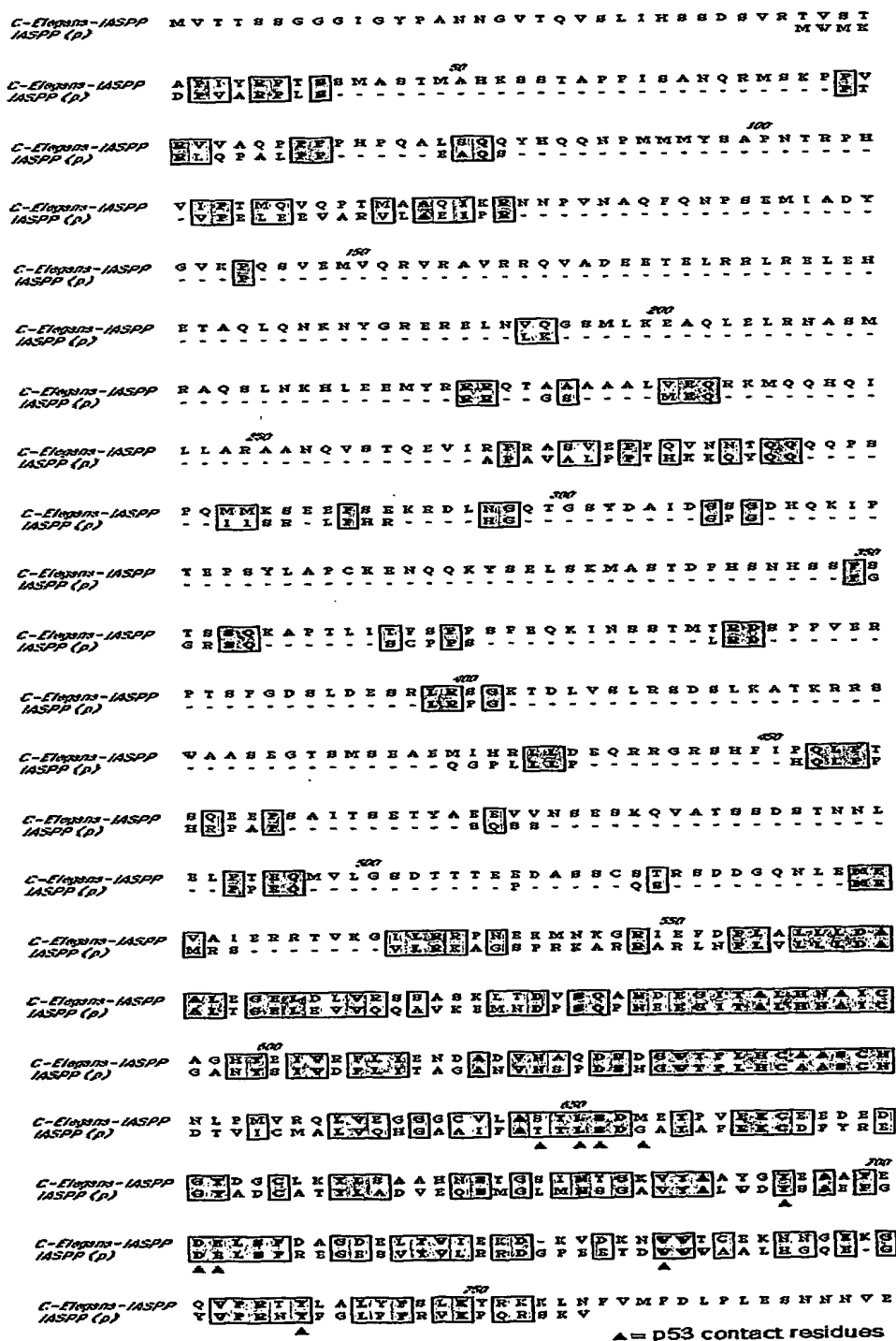


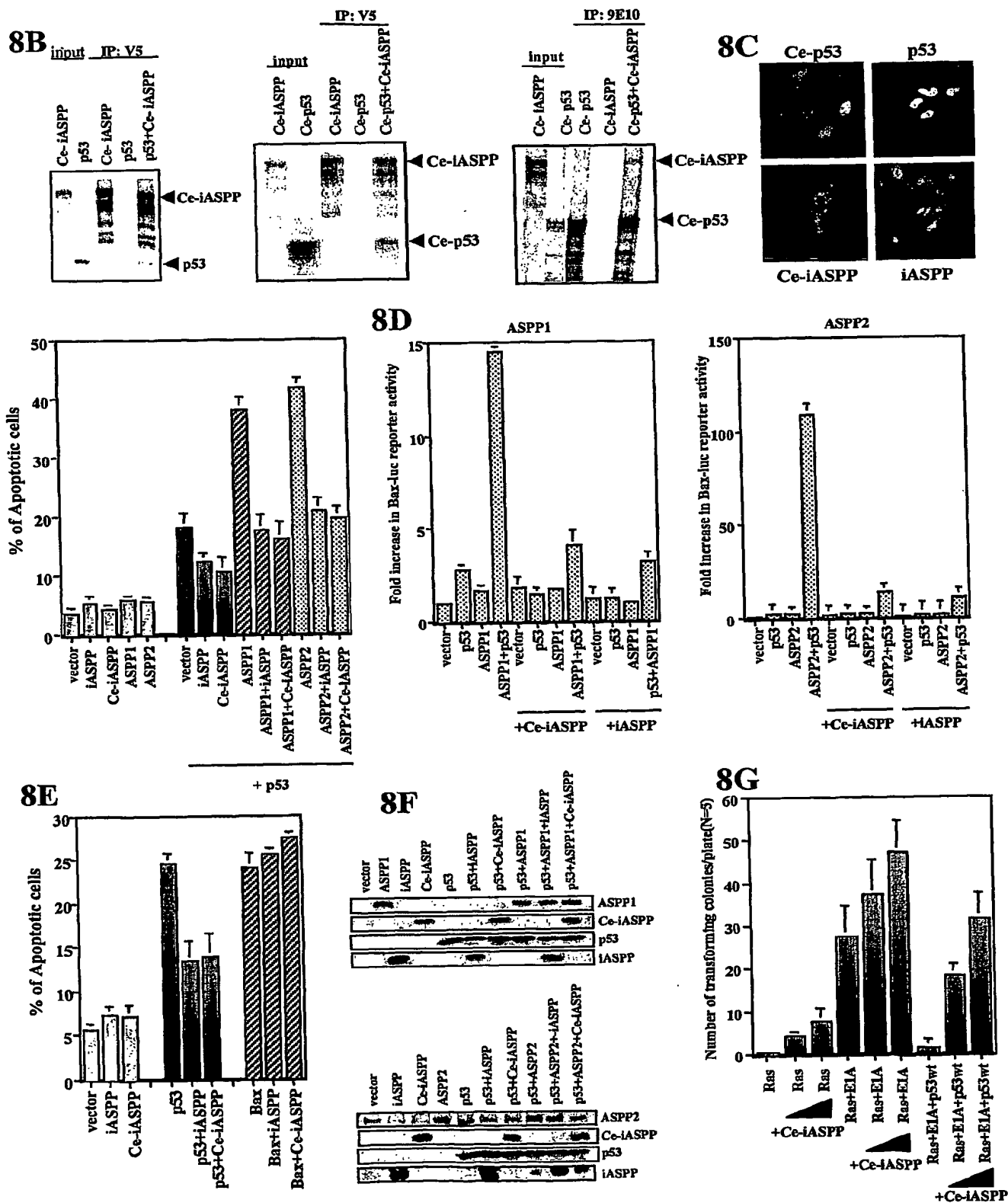
Fig. 5.



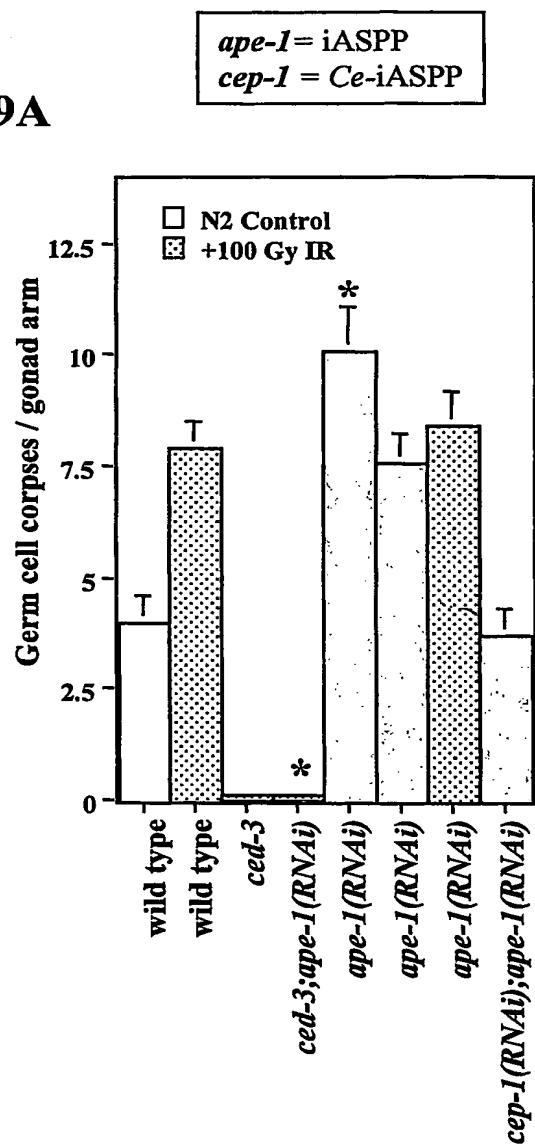
Figure 7

Formatted Alignments





9A



9B

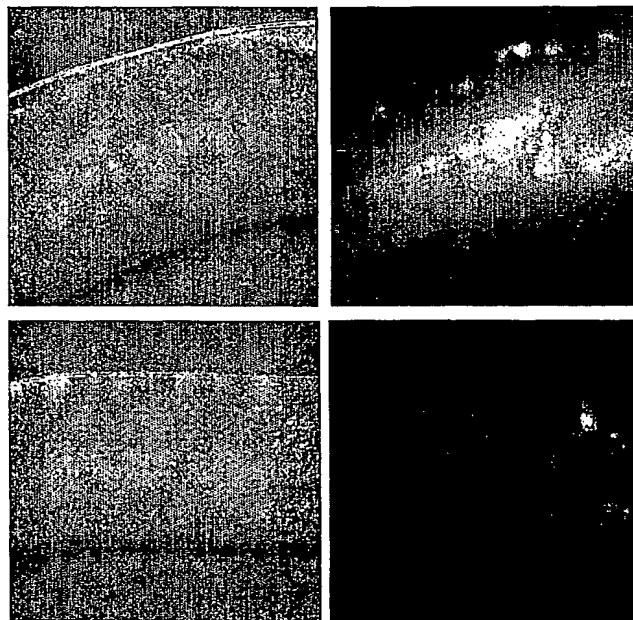


Figure 10

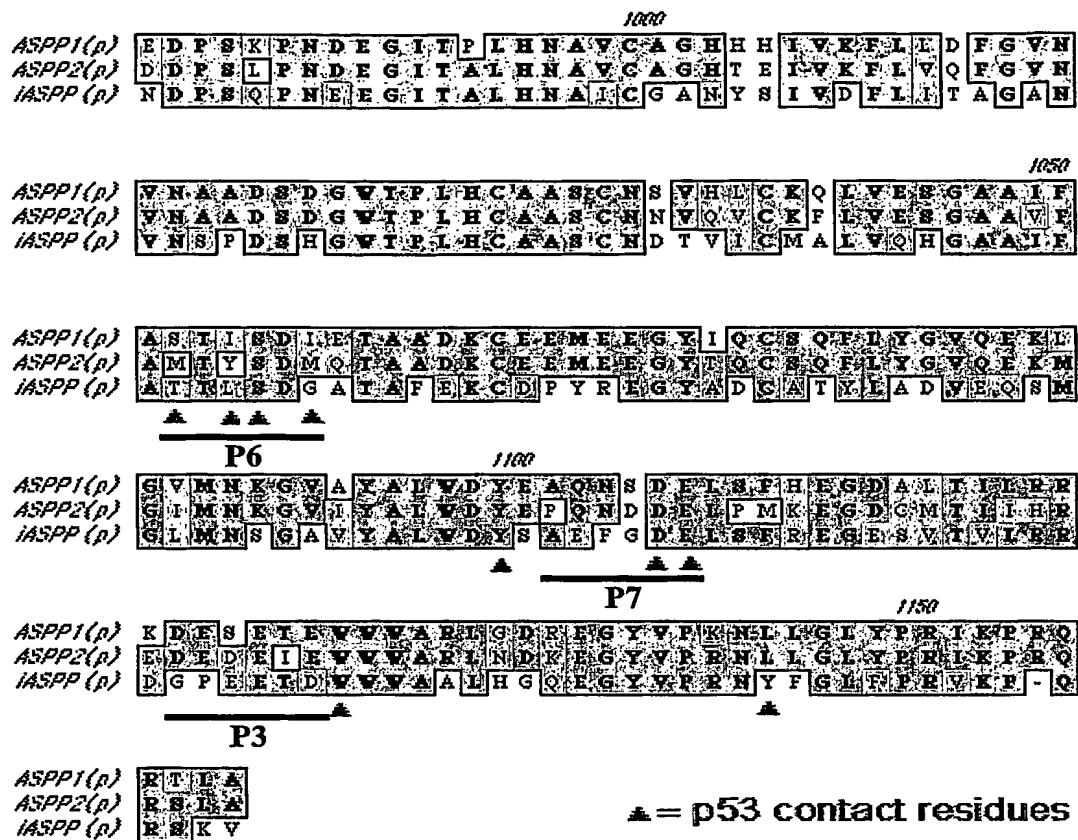


Figure 11

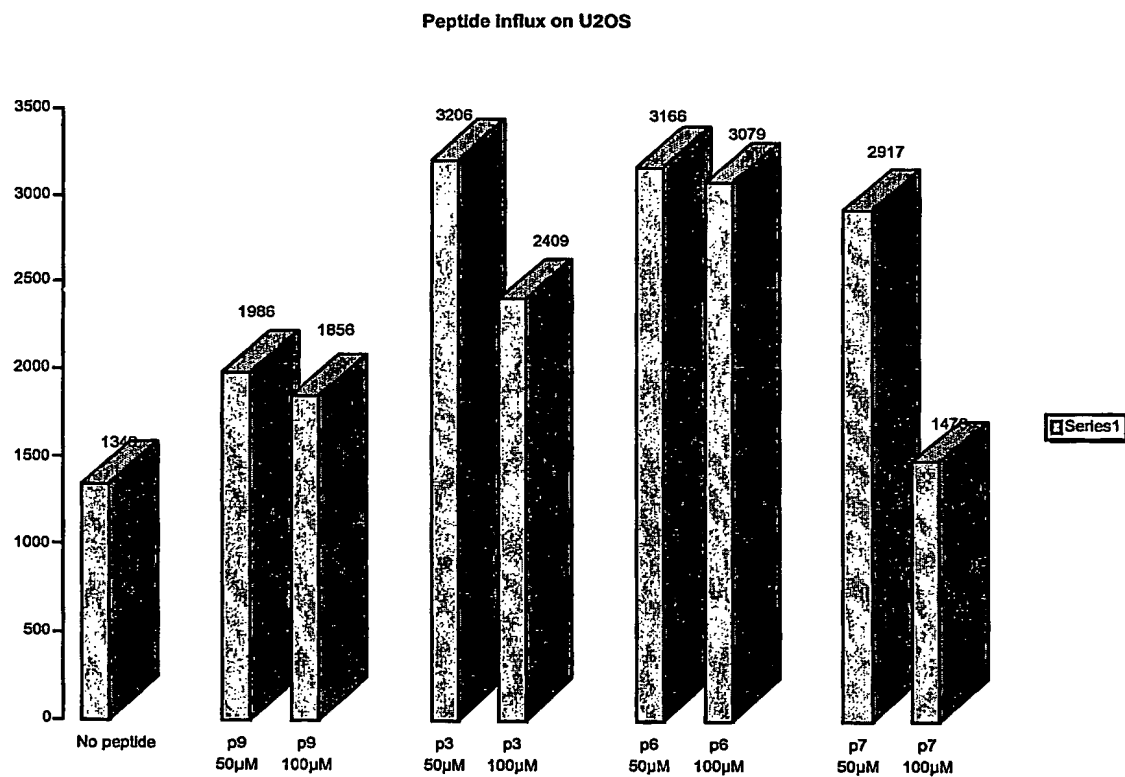


Figure 12

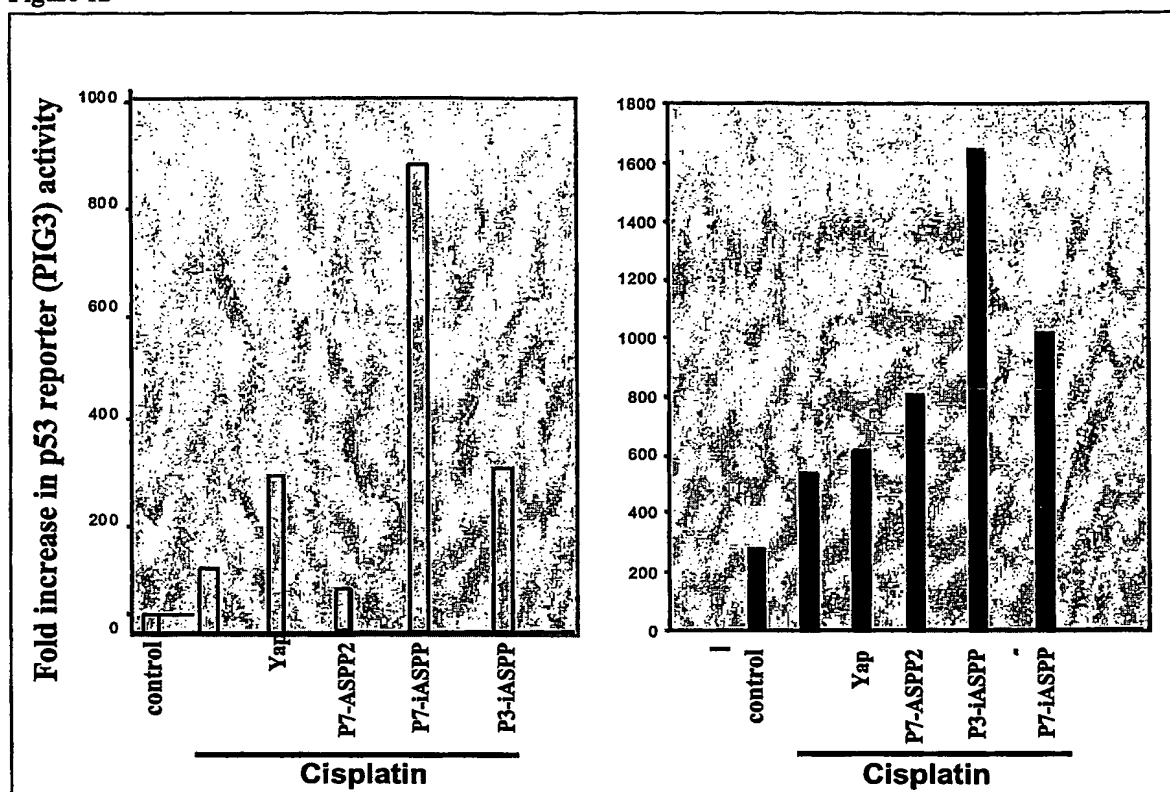


Figure 13

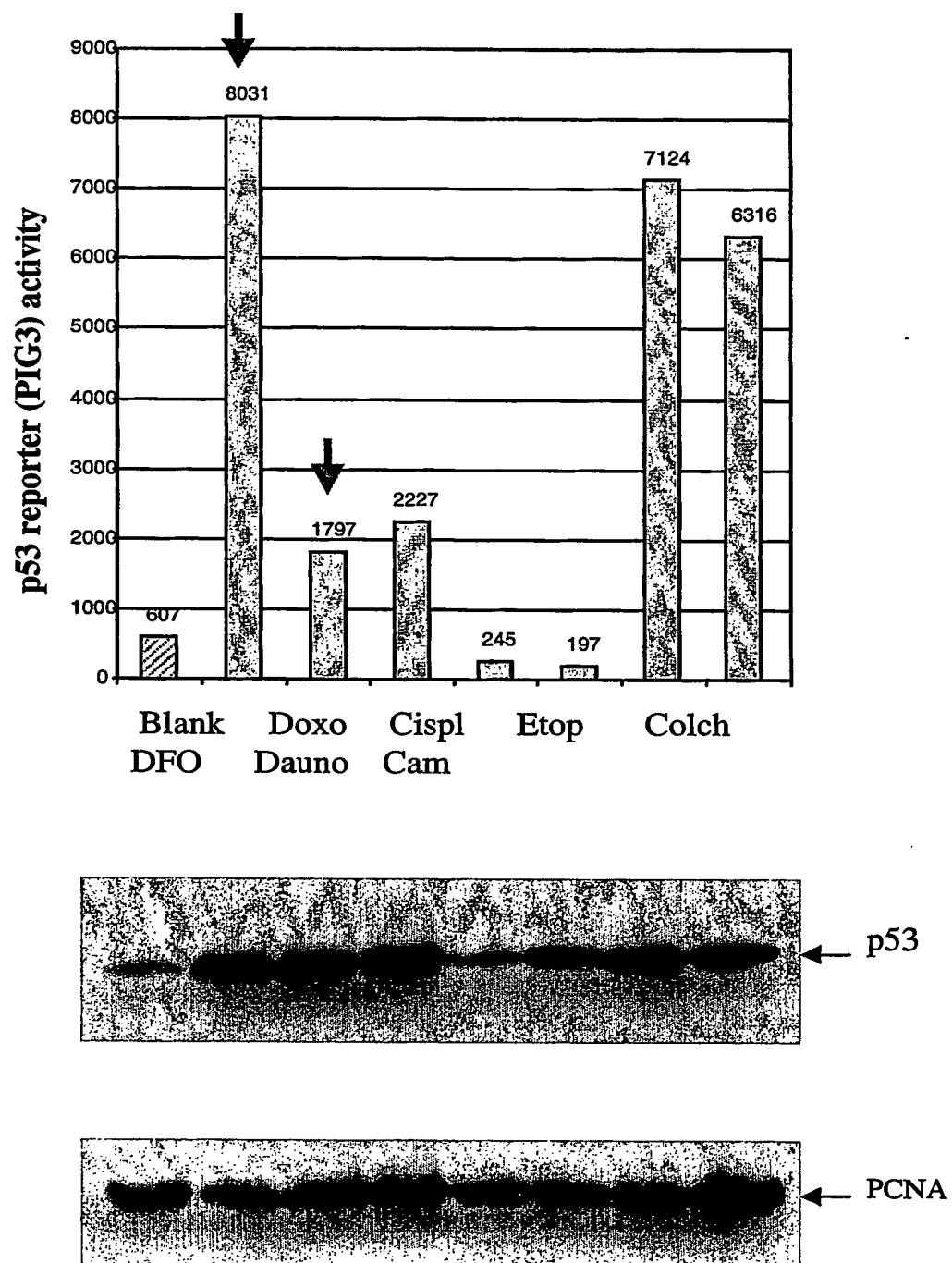


Figure 14a

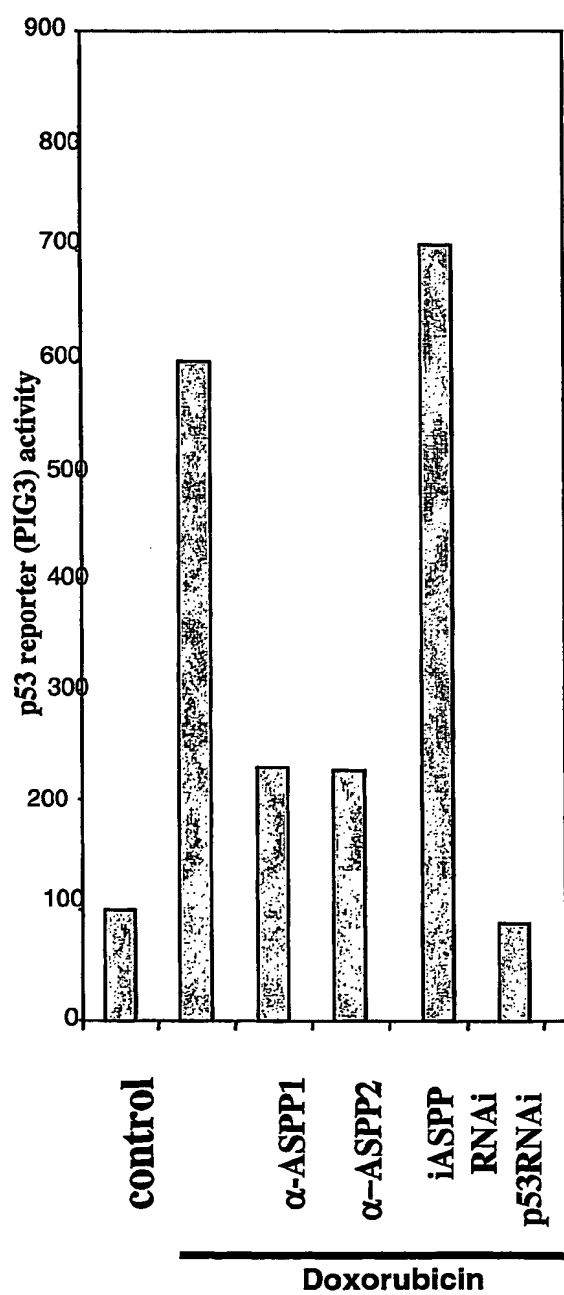


Figure 14b

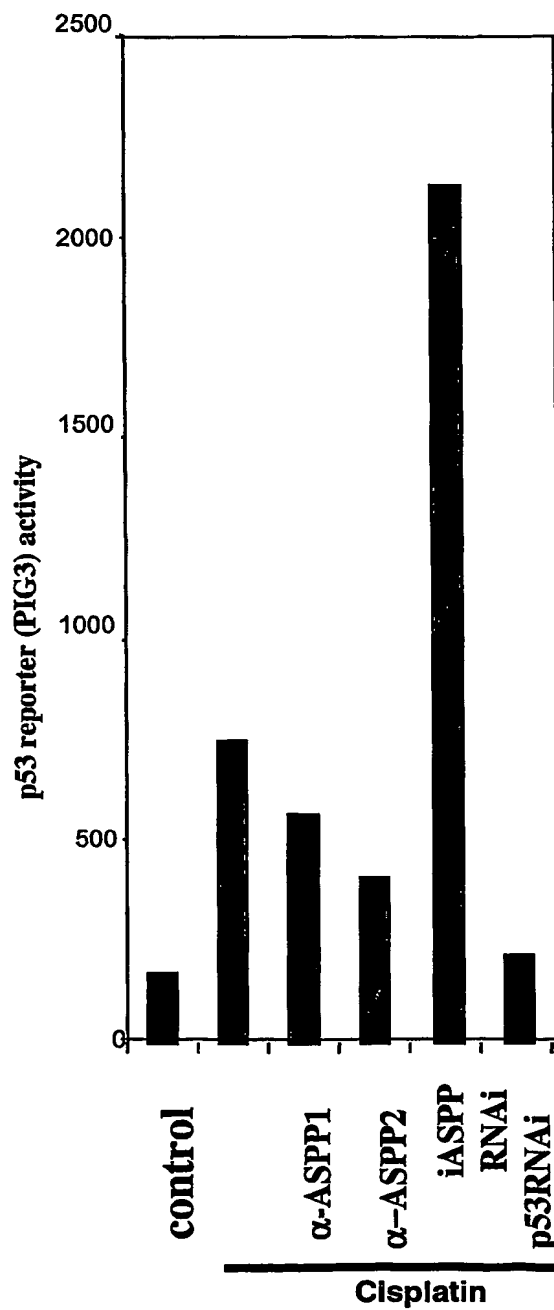


Figure 15

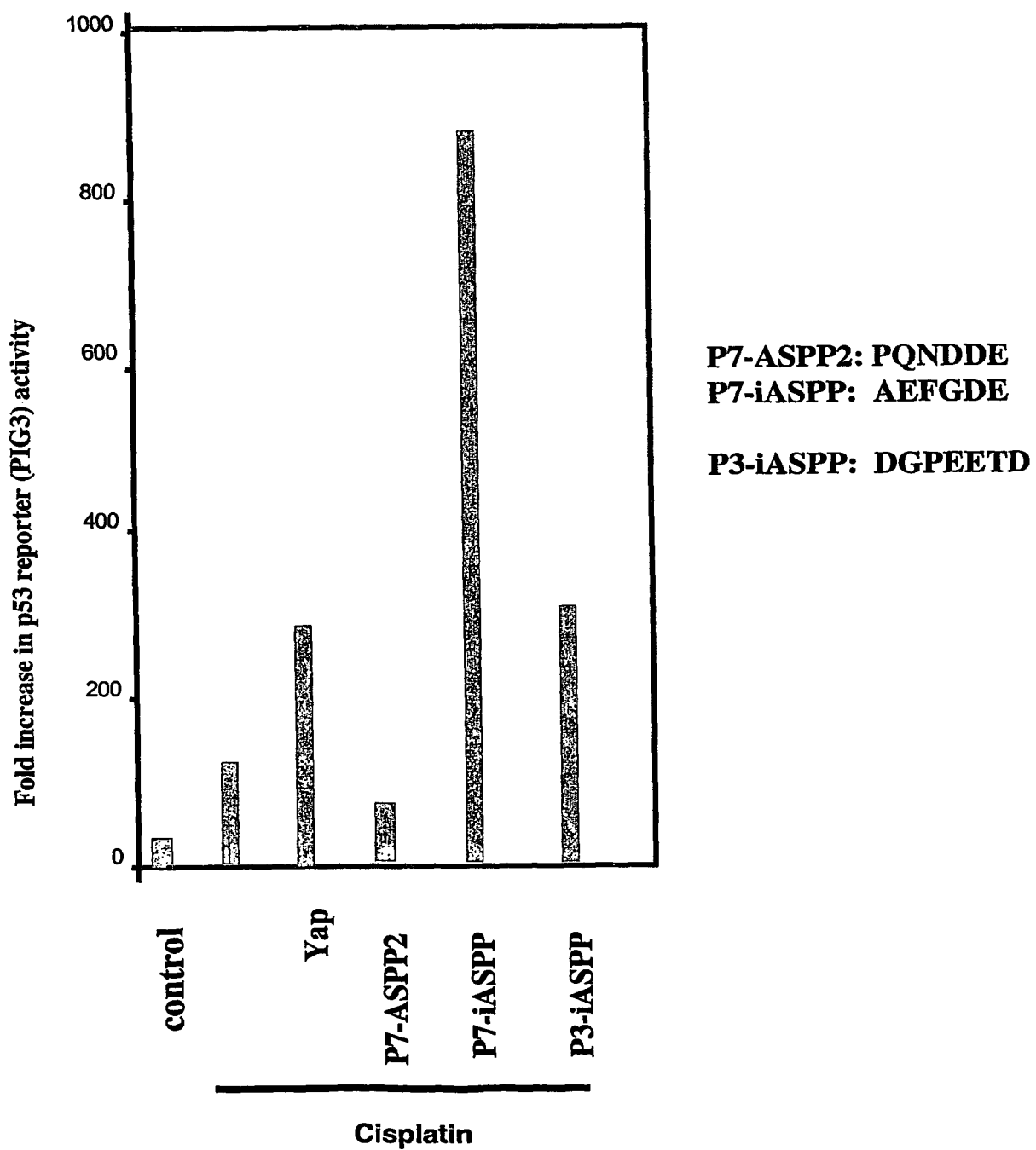


Table 1

	Human	Mouse	C.EL.	Drosophila	Fugu I	Fugu II	Fugu III	Fugu IV
Human (352)	X	X	X	X	X	X	X	X
Mouse (260)		93.7 X	X	X	X	X	X	X
C.EL. (769)		20.4	38.8 X	X	X	X	X	X
Drosophila (1071)		43.2	40.0	32.4 X	X	X	X	X
Fugu I (260)		51.9	45.0	48.1	55.4 X	X	X	X
Fugu II (252)		54.8	54.8	51.6	58.7 X	X	X	X
Fugu III (144)		54.2	53.5	54.2	64.6 X	X	X	X
Fugu IV (132)		51.5	50.8	55.3	62.9 X	X	X	X

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ BLACK BORDERS

☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

☒ FADED TEXT OR DRAWING

☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING

☐ SKEWED/SLANTED IMAGES

☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS

☐ GRAY SCALE DOCUMENTS

☒ LINES OR MARKS ON ORIGINAL DOCUMENT

☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.